

DEFENSE PRIORITIES AND ALLOCATIONS SYSTEM (15 CFR 700)

GENERAL

As a defense contractor for the Department of the Army, you are required to follow the provisions of the Defense Priorities and Allocations System (DPAS) and the other applicable regulations and orders of the Department of Commerce (DOC) in obtaining products, services, and materials needed to fill this order. (Ref General Provisions, FAR 52.211-15.)

The rules relating to the status, placement, acceptance, and treatment of priority ratings and rated orders are contained in DPAS. There are two types of priority ratings: DO ratings and DX ratings. A priority rating consists of either of these rating symbols and one of program identification. For example, DO-A6 identifies the program as ammunition (A6) and gives the contract a DO rating. DX-A5 identifies the program as weapons (A5) and gives the contract a DX rating. The program identification symbol (A5, A6, etc.) does not affect the preferential status of the rating on the applicable contract.

Use of the priorities system is appropriate during the solicitation phase in aligning potential suppliers/subcontractors. It is, therefore, imperative that prospective bidders/offerors identify each request for quotations issued to suppliers as a defense order with the applicable priority rating that would be assigned.

SEQUENCE OF FILLING RATED ORDERS

Acceptance of a rated order requires scheduling of operations to fill each rated order by the required delivery or performance date, regardless of the sequence in which the orders were received. If this is not possible, precedence must be given as follows:

- a. DX rated orders take precedence over DO rated orders, and DO rated orders take precedence over unrated orders. All DX ratings have equal preferential status; all DO ratings have equal preferential status.
- b. A conflict between rated orders of equal priority status: precedence shall be given to the order which was received first.
- c. A conflict between rated orders of equal priority status received on the same day: precedence shall be given to the order which has the earliest required delivery or performance date.

MANDATORY USE OF RATINGS

It is mandatory that prime contractors receiving rated orders extend the rating to their subcontractors and suppliers for the materials necessary to complete the rated contract. The priority rating appearing in the contract shall be used when placing subcontracts and purchase orders for production materials, components and/or items (e.g., special jigs, dies, fixtures, and inspection gauges) required for performance on a rated contract. The contractor shall advise subcontractors (first, second, or subsequent tier) to extend the rating and program identification when placing subcontracts and purchase orders. A rated order must contain the following:

- a. The priority rating - which consists of the prefix DO or DX, followed by the program identification, A6, B9, C3, or C9, etc.
- b. A statement that reads in substance: This is a rated order certified for national defense use, and you are required to follow all the provisions of the Defense Priorities and Allocations System regulation (15 CRF 700).
- c. The signature of an authorized official of the firm placing the order.
- d. The delivery date or dates required.

PRIORITIES ASSISTANCE

The priorities provided by DPAS may not always prove effective and compliance with the system by material suppliers may be lacking. In order to aid defense contractors in overcoming such production bottlenecks, DOC provides special assistance. When a defense contractor determines that its supplier's delivery promises will not permit the maintenance of its contract schedule, the contractor may then submit a Request for Special Priorities Assistance on Form BXA-999. Form BXA-999 should be filed through the Administrative Contracting Officer (ACO) administering the contract for processing to Commander, Industrial Operations Command, ATTN: AMSIO-IOI-L, Rock Island, IL 61299-6000. Furnish one advance copy of the Form BXA-999 to AMSIO-IOI-L.

PRIORITY RATING FOR PRODUCTION EQUIPMENT

A priority rating for the purchase of contractor-owned production equipment in support of a rated contract may be authorized to either the prime contractor or its subcontractors. Rating authority requires submittal of a DD Form 691, Application for Production Equipment, through the Administrative Contracting Officer (ACO) administering the contract for processing to Commander, Industrial Operations Command, ATTN: AMSIO-IOI-L, Rock Island, IL 61299-6000. Furnish one advance copy of the DD Form 691 to AMSIO-IOI-L.

INFORMATION

The contractor may request assistance in using the forms BXA-999, Request for Special Priorities Assistance and DD Form 691, Application for Rating for Production Equipment from Commander, Industrial Operations Command, ATTN: AMSIO-IOI-L, Rock Island, IL 61299-6000 (e-mail dpas@ria-emh2.army.mil).

Copies of a booklet, "Defense Priorities and Allocations System," and a complete list of the regulations, orders, and directions currently in effect, may be obtained from district offices of the U.S. Department of Commerce or from Publications Sales Branch, U.S. Department of Commerce, Washington, D.C. 20230. Copies of DPAS may also be obtained from Commander, Industrial Operations Command, ATTN: AMSIO-IOI-L, Rock Island, IL 61299-6000 (e-mail dpas@ria-emh2.army.mil).

SPECIAL PACKAGING INSTRUCTIONForm Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 30 days per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, Va 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project(0704-0188), Washington, D.C. 20503. Please do not return your form to either of these addresses.

1. PART OR DRAWING NO. NOMENCLATURE 9348345 GAS CYLINDER		2. CODE INDENT 19200	3. SPI NO. (AM)P9348345
4. NATIONAL STOCK NUMBER 1005011285492		5. DATE OF DRAWING/SPI 09/18/97	6. REVISION / ERR NO. B/L7K2025
7. QUP 1/EA	8. ICQ	9. UNIT PACK WT. (LB) (0.0) .70	10. UNIT PACK CU (CU. FT) (0.000) 0.012
		11. UNIT PACK SIZE (INCHES) (00.0) 10.7 X 1.44 X 1.44	

		18 STEPS	19 REQD	20 DESCRIPTION
		1		PRESERVATIVE,VV-L-800 WRAP MIL-P-3420 ST,A TY,I CL,3 BAG, MIL-B-117 TY,I CL,C
		2		
		3		
12. MILITARY PRESERVATION MIL-STD-2073-1,METHOD 33				
13. CLEANING *				
14. DRYING *				
15. PACKING				
a. LEVEL A MIL-STD-2073-1				
d. LEVEL B MIL-STD-2073-1				
16. MARKING MIL-STD-129				

17. NOTES / DRAWING

***UNLESS OTHERWISE SPECIFIED, CLEANING AND DRYING SHALL BE IN ACCORDANCE WITH PARAGRAPH 5.2.1 OF MIL-STD-2073-1.
WEIGHTS AND SIZES ARE ESTIMATED AND MAY VARY SLIGHTLY.
INTERMEDIATE PACKAGING AND PACKING WILL BE IN ACCORDANCE WITH SPECIFICATION MIL-STD-2073-1 OR AS OTHERWISE SPECIFIED HEREON.**

WSC: 6Z ITEM SIZE: 10.3 X 1.2 X 1.2

ITEM WEIGHT: .60

APPROVED: JAMES F. ZOLL

STATEMENT A, UNLIMITED

DOCUMENT SUMMARY LIST

Item: GAS CYLINDER
NSN: 1005-01-128-5492
Control Number/PRON: P28SSD01

Identifies all first tier documents (cited in SOW) (applicable DIDs). Also included are all referenced documents (2nd, (includes DID block 10 references), 3rd and lower tier) which have been tailored.

DOCUMENT CATEGORY:

CATEGORY O - Unless otherwise specified in the solicitation, contract, or contract modifications, all documents are for guidance and information only.

CATEGORY 1 - The requirements contained in the directly cited document are contractually applicable to the extent specified. All referenced documents are for guidance and information only.

CATEGORY 2 - The requirements contained in the directly cited document and the reference documents identified in the directly cited document are contractually applicable to the extent specified. All subsequently referenced documents are for guidance and information only.

CATEGORY 3 - Unless otherwise specified in the solicitation, contract or contract modification, all requirements contained in the directly cited document and all reference and subsequently referenced documents are contractually applicable to the extent specified.

Document Number (Contract Reference) Applicable Tailoring	Document Title	Document Date/ Document Category
1a. MIL-STD-973	Configuration Management	17 Apr 92 Cat 2

See section C clause(s) titled: Value Engineering Change Proposals, Engineering Change Proposals, Deviation and/or Ozone-Depleting Substances.

In the application of MIL-STD-973 Paragraphs 5.4.3, 5.4.4 and 5.4.8 apply, and are tailored as follows:

(1) Page 53, para 5.4.3.4., Delete "a contractor designed form, or a letter" in the first sentence.

(2) Page 53, para 5.4.3.3.2a., Line 5, add "or size" after "weight".

(3) Page 53, Delete para 5.4.3.5., and replace by, "Unless otherwise specified in the contract, requests for critical deviations should be approved or disapproved within 30 calendar days of receipt by the Government and for all other deviations within 60 calendar days of receipt by the Government."

(4) Para 5.4.3.5.1. Minor deviations.

Line 3. Delete "...by the activity...Class II change" and insert "by the Contracting Officer."

(5) Page 55, para 5.4.4.3.2a., Line 7, add "or size" after "weight".

(6) Page 56. Delete paragraph 5.4.4.5 and replace by "Unless otherwise specified in the contract, requests for critical waivers should be approved or disapproved within 30 calendar days of receipt by the Government and for all other RFWs within 60 calendar days of receipt by the Government."

(7) Para 5.4.4.5.1. Minor waivers.
Lines 4 and 5. Delete "...Contract Administration Office (CAO)." Insert "...Configuration Manager and a Government Contracting Officer."

(8) Page 61, para 5.4.8.3.4., in line 6 add "or size" after "weight".

(9) Page 61, Add new para 5.4.8.3.4.1., "An RFD shall be supported by test data and analysis, where appropriate, and provided to support the decision regarding acceptance of the nonconformance."

(10) Page 61, Delete para 5.4.8.3.5. and replace by, "Unless otherwise specified in the contract, deviations are approved and authorized only by the Contracting Officer. Critical deviations should be processed within 30 calendar days of receipt by the Government and all other RFDs processed within 60 calendar days of receipt by the Government."

(11) Page 62, para 5.4.8.4, Delete lines 7 thru 10 and replace with "standard. All RFWs shall be submitted as specified in the contract for approval or disapproval and acceptance or rejection by the authorized Contracting Officer."

(12) Page 62, para 5.4.8.4.4., on line 6 add "or size" after "weight".

(13) Page 62, Add new para 5.4.8.4.4.1., "an RFW shall be supported by test data and analysis, where appropriate, and provided to support the decision regarding acceptance of the nonconformance."

1b. Interim Notice 3 (DO)	Configuration Management	13 Jan 95 Cat 2
1c. DI-CMAN-80639B (seq A001)	Engineering Change Proposal	13 Jan 95 Cat 2
1d. DI-CMAN-80640B (seq A002)	Request for Deviation	13 Jan 95 Cat 2
1e. DI-CMAN-80641B (seq A003)	Request for Waiver	13 Jan 95 Cat 2
1f. DI-CMAN-80642B (seq A004)	Notice of Revision	13 Jan 95 Cat 2
2. ANSI/ISO/ASQC Q9003 or equivalent	Quality Systems – Model for Quality Assurance in Final Inspection and Test	18 Jul 94

PRON NO:P28SSD01

3a. ANSI/ASQC Z1.1, Z1.2 and Z1.3 (Statistical Process Control Sec E)	American National Standards	1985 Cat 2
3b. OT-90-12138 (DD Form 1423)	Statistical Process Control (SPC) Plan	12 Jun 90 Cat 1
4a. DOD-P-16232F INT Amd1 (TDPL)	Phosphate Coating Heavy Manganese or Zinc Base (For Ferrous Metal)	09 Sep 92 Cat 2
4b. DI-NDTI-80603 (DD Form 1423)	Test Procedure	01 Jun 88 Cat 1

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

- Item A.** Self-explanatory.
- Item B.** Self-explanatory.
- Item C.** Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management", etc.
- Item D.** Enter name of system/item being acquired that data will support.
- Item E.** Self-explanatory (to be filled in after contract award).
- Item F.** Self-explanatory (to be filled in after contract award).
- Item G.** Signature of preparer of CDRL.
- Item H.** Date CDRL was prepared.
- Item I.** Signature of CDRL approval authority.
- Item J.** Date CDRL was approved.
- Item 1.** See DoD FAR Supplement Subpart 4.71 for proper numbering.
- Item 2.** Enter title as it appears on data acquisition document cited in Item 4.
- Item 3.** Enter subtitle of data item for further definition of data item (optional entry).
- Item 4.** Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSDL), or one-time DID number, that defines data content and format requirements.
- Item 5.** Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).
- Item 6.** Enter technical office responsible for ensuring adequacy of the data item.
- Item 7.** Specify requirement for inspection/acceptance of the data item by the Government.
- Item 8.** Specify requirement for approval of a draft before preparation of the final data item.
- Item 9.** For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoD 5230.24).
- Item 10.** Specify number of times data items are to be delivered.
- Item 11.** Specify as-of date of data item, when applicable.
- Item 12.** Specify when first submittal is required.
- Item 13.** Specify when subsequent submittals are required, when applicable.
- Item 14.** Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.
- Item 15.** Enter total number of draft/final copies to be delivered.
- Item 16.** Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. These estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

GUIDANCE ON DOCUMENTATION OF CONTRACT DATA REQUIREMENTS LIST (CDRL)

The following information is furnished to provide guidance with respect to the abbreviations and codes utilized in various blocks of DD Form 1423, Contract Data Requirements List.

Block 1, Sequence Number. This number is specified by DOD components in accordance with FAR Supplement Subpart 4.71.

Block 2, Title of Description of Data. This represents the title or brief description of the data. This title should be identical to the Data Item Description (DID) title with Block 3 being used for further identification, if required.

Block 3, Subtitle of Data. If the title requires further identification, a subtitle is entered.

Block 4, Authority, Data Item Number. Data item number of the DID which provides the data preparation instructions.

Block 5, Contractor Reference. The specific paragraph number of the contract procurement request, system specification or other applicable document which identifies the effort associated with the data item authorized by Block 4 above.

Block 6, Technical Office. The office that is responsible for assuring the adequacy of the data item unless this responsibility is delegated elsewhere in the contract or in Block 7 on the DD Form 1423.

Block 7, DD Form 250 Requirement. This block designates the location (contractor's facility or destination) for performance of Government inspection and acceptance. The applicable codes for inspection and acceptance are cited below. The Government activity to perform the destination acceptance task is entered in Block 14 as the first addressee.

<u>Code</u>	<u>Inspection</u>	<u>Acceptance</u>
SS	*Source (DD Form 250)	*Source (DD Form 250)
DD	Destination (DD Form 250)	Destination (DD Form 250)
SD	*Source (DD Form 250)	Destination (DD Form 250)
DS	Destination (DD Form 250)	*Source (DD Form 250)
LT	Letter of Transmittal only	
NO	No inspection or acceptance required	
XX	Inspection/acceptance requirements specified elsewhere in the contract	

*Source indicates contractor's facility.

Block 8, Approval Code. Items of critical data requiring specific advanced written approval, such as test plans, are identified by an "A" in this field. This data requires submission of a preliminary draft prior to publication of the final document. When advanced approval is not required, this field is blank.

Block 9, Distribution Statement Required. The code letter corresponding to the distribution statement to be marked on the technical data item by the contractor, in accordance with DoD Directive 5230.24 and the guidance in DoD 5010.12-M.

Block 10, Frequency. The codes that appear in this block are cited below:

ANNLY	Annually	ASGEN	As generated*
ASREQ	As required*	BI-MO	Every 2 months
BI-WE	Every 2 weeks	DAILY	Daily
DFDEL	Deferred delivery	MTHLY	Monthly

ONE/P	One preliminary	ONE/R	One time w/revisions
QRTLY	Quarterly	R/ASR	Revision as required*
SEMIA	Every 6 months	WEKLY	Weekly
XTIME**	Number of times to be submitted (1TIMES, 2TIMES, etc)		

*Use of these codes requires further explanation in block 16 to provide the contractor with guidance necessary to accurately price the deliverable data item.

**A number must be inserted in place of the "X".

Block 11, As of Date (AOD). When data is submitted only once, this block indicates the number of days the data is to be submitted prior to the end of the reporting period; e.g., "15" would place the AOD for this report as 15 days before the end of each month, quarter, or year depending on the frequency established in Block 10; "0" places the AOD at the end of the month, quarter, or year. Further guidance is shown in Block 13 or 16 as required.

Block 12, Date of First Submission. This block indicates the initial data submission date (Year/Month/Day). When the contract start date has not been established, this block indicates the number of days after the contract start date that the data is due; e.g., 30 days after contract (DAC). Further information, if required, is contained in Block 13. "DFDEL" indicates deferred delivery.

Block 13, Date of Subsequent Submission/Event Identification. When data is submitted more than once, the date(s) of subsequent submission(s) is indicated in this block. Example: "Not later than (NLT) 15 days before start of production"; 45 days before first article", etc.

Block 14, Distribution and Addressees. Addressees and number of copies (draft/regular/reproducible) to be forwarded to each addressee as cited in this block. Addressees are indicated by office symbols (i.e., AMSTA-XYZ). A list explaining these symbols and their addressees is attached to the form. When reproducible copies are required, the type of copies required will be cited in this block or Block 16.

NOTE: Unless otherwise cited in Block 10 of DD Form 1664, entries in Blocks 3 through 9 on DD Form 1664, Data Item Descriptions, are for information purposes only and are not contractually binding.

NOTE: It is required that data items be delivered using electronic media. Where possible electronic transmission (e-mail) is the most preferred method. Refer to the Contract Data Requirements List (CDRL), DD Form 1423 for more specific information (i.e., e-mail addresses, etc.)

LIST OF ADDRESSES

Commander
U.S. Army Industrial Operations Command
ATTN: AMSIO-_____ (see block 14 of DD form 1423 for symbols that apply)
Rock Island, IL 61299-6000

Director
Armament and Chemical Acquisition, and Logistics Activity
ATTN: AMSTA-AC_____ (see block of DD form 1423 for symbols that apply)
Rock Island, IL 61299-8630

Director
U.S. Army, Armament, Research, Development & Engineering Center
ATTN: AMSTA-AR_____*(R) (see block of DD form 1423 for symbols that apply)
Rock Island, IL 61299-7300

*When letter in parentheses at end of office symbol is a "R", use Rock Island address;
when it is a "D", use Picatinny Arsenal address.

E-MAIL ADDRESSES:

AMSTA-AR-QA__(R) amsta-ar-qa-cdrl@ria-emh2.army.mil

**ADDRESS CODE DISTRIBUTION
FOR ECP/RFD/RFW/VECP**

1. Concurrent distribution of Value Engineering Change Proposals (VECPs), Engineering Change Proposals (ECPs), Request for Deviations (RFDs) shall be submitted by the Contractors as follows:

2. The contractor shall submit copies as required and as identified below to: Director, U.S. Army Armament Research, Development and Engineering Center, ATTN: AMSTA-AR-EDT-R (ECPs), Rock Island, IL 61299-7300 except for Chemical items (see note below).

- a. VECPs - original plus 3 copies
original (Tools & Equipment)
original plus 2 copies (Navy or Air Force)
- b. ECPs - original plus 2 copies
original (Tools & Equipment)
original plus 2 copies (Navy or Air Force)
- c. RFDs/RFWs- original plus 2 copies
original plus 2 copies (Navy or Air Force)

****NOTE - All Chemical items shall be submitted to: Commander, CBDCOM, ATTN: SCBRD-EN(RI), Rock Island, IL 61299-7410.****

- a. VECPS - original plus 3 copies
- b. ECPs - original plus 2 copies
- c. RFDs/RFWs - original plus 1 copy

3. Provide one copy designated "Advance Copy" to one of the following design agencies if the agency is cited in the contract:

a. Chemical Command: Commander, Chemical Biological Defense Agency, ATTN: SCBRD-ENE-D, Aberdeen Proving Ground, MD 21010-5423.

b. U.S. Navy: Commander, Naval Surface Warfare Center, Crane Division, ATTN: Code 40, Crane, IN 47522-5000, or Commander, Naval Air Warfare Center, Weapons Division, 521.9th St., ATTN: Code 332200E, Point Mugu, CA 83042-5001.

c. U.S. Air Force: Commander, U.S. Army Industrial Operations Command, ATTN: AMSIO-ASI-SA (Mr. Flood ASD/YH), Eglin Air Force Base, FL 32542-5000, or Commander, Ogden Air Logistics Center, ATTN: OO-ALC/LIWGE, 6034 Dogwood Ave., Hill Air Force Base, UT 84056-5816.

4. Provide one copy designated "Advance Copy" to:

a. Contracting Officer: Director, Armament and Chemical Acquisition, and Logistics Activity, Rock Island, IL 61299-8630 (ACALA items) or Commander, Industrial Operations Command, Rock Island, IL 61299-6000 (IOC items).

b. Administrative Contracting Officer.

5. For VECPs only, provide one copy designated "Advance Copy" to the Value Engineering Division: Commander, U.S. Army Industrial Operations Command, ATTN: AMSIO-RMV, Rock Island, IL 61299-6000.

6. When ECPs, RFWs, RFDs are determined to be Urgent, Critical and/or Schedule impacting, an action copy shall be provided to AMSTA-AR-EDT-R via data facsimile (FAX) to 309-782-6450. This transmission is to be immediately followed with the usual hard copy mailing.

DATA ITEM DESCRIPTIONFORM APPROVED
OMB NO. 0704-0188

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, Va 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503

1. TITLE

Statistical Process Control (SPC) Plan

2. IDENTIFICATION NUMBER

OT-90-12138

3. DESCRIPTION/PURPOSE

3.1 This plan details the method of implementing and utilizing SPC to establish continuous process improvement of those process and operation parameters subject to control.

3.2 The plan will be utilized by the Government to evaluate the contractor's SPC procedures and to determine the extent of contractor compliance to those procedures.

**4. APPROVAL DATE
(YYMMDD)**

900612

5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)

A/AMSMC-QA

6a. DTIC APPLICABLE**6b. GIDEP APPLICABLE****7. APPLICATION/INTERRELATIONSHIP**

7.1 This DID contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is for one-time use for solicitation P28SSDØ1

8. APPROVAL LIMITATIONLtd to solicitation P28SSDØ1**9a. APPLICABLE FORMS****9b. AMSC NUMBER****10. PREPARATION INSTRUCTIONS**

10.1 Reference documents. The applicable issue of the documents cited herein, including the approval dates of any applicable amendments, notices and revisions, shall be as reflected in the contract.

10.2 General. The SPC plan shall consist of two sections with appropriate subsections. Section I shall be the general management plan and Section II shall be the detailed plan specific to the process or operation parameters subject to control.

10.3 Format and Content. The SPC plan shall include the following sections:

10.3.1 General Management Plan--Section I. This section shall define management's responsibilities and involvement during all phases of SPC implementation and shall include management's commitment to continuous process improvement. The plan shall embrace a total commitment to quality and should stand on it's own merit; however, when necessary, the plan should repeat and/or supplement information contained in the contractor's quality program or system plan.

(Continued on page 2)

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Block 10. Preparation Instructions (Continued)

10.3.1.1 Policy/Scope. Describe the Contractor's policy for applying SPC, including goals and management commitment to SPC. Milestones of a time-phased schedule for implementation of SPC shall be included in the general section of this plan.

10.3.1.2 Applicable Documents. List documents that are the basis for the contractor's SPC program (i.e., ANSI standard, text books, Government documents)

10.3.1.3 SPC Management Structure.

a. Define the SPC management structure within the organization. Identify and include interrelationships of all departments involved in SPC (i.e., Production, Quality, Engineering, Purchasing, etc.).

b. Identify by job title or position all key personnel within departments involved in the application of SPC.

c. Describe which functions are performed by the key personnel and identify when these functions are performed, (i.e., include personnel responsible for performing inspections/ audits, charting and interpreting data; personnel responsible for determining, initiating and implementing corrective action upon detecting assignable causes, etc.).

10.3.1.4 SPC Training. Identify by job title or position the primary individual responsible for SPC training.

a. Describe the qualification program required and in use for all personnel utilizing SPC techniques, including the the qualification of trainers.

b. Identify who is to be trained and the type, extent and length of such training (i.e., on-the-job, classroom, etc.). Identify when refresher training is required and how personnel using SPC techniques are monitored.

10.3.1.5 Manufacturing Controls. Identify the criteria for performing gage capability studies and describe how and when these studies are applied. Repeatability and accuracy of gages should be addressed.

10.3.1.6 Determination of SPC Use. Describe how process/operation parameters are determined appropriate for SPC application and explain what actions are taken if SPC is not deemed appropriate for critical, special and major process/operation parameters (i.e., Pareto analysis; analysis of characteristics with tight tolerances, etc.).

10.3.1.7 Process Stability and Capability.

a. The following definitions apply:

(1) Process stability--Specified in 6.1, State of Control, of ANSI Z1.1.

(2) Process capability--The ability of a process to consistently produce parts as related to the specification limits.

(3) Process capability index (Cp)--The ratio of the specification width (as determined by design parameters) and the process capability (+/- 3 sigma), assuming a stable centered process. $Cp = \text{tolerance} / 6 \text{ sigma}$.

Block 10, Preparation Instructions (Continued)

(4) Process performance index (Cpk)--Considers the position of the process average (\bar{X} double bar) in relation to the tolerance, and is the lesser of two numbers derived from the ratio of the distance of \bar{X} double bar from the upper and lower specifications (USL & LSL) and 3 standard deviations. $Cpk = \frac{USL - \bar{X} \text{ double bar}}{3 \text{ sigma}}$ or $\frac{\bar{X} \text{ double bar} - LSL}{3 \text{ sigma}}$.

b. Identify the criteria for performing process capability studies and describe how and when these studies are applied. Describe how the process capability index is calculated and include the frequency of these calculations. Describe what actions are taken as a result of each process capability study.

c. Describe the contractor's methodologies when process capability is for variable and attribute data.

d. To determine a capable process, the process/operation parameters shall meet the following requirements:

(1) Variable Data: Process capability (C_p) shall be determined. Process performance index shall be greater than or equal to 1.33 (C_{pk}). For critical parameters/characteristics, the process performance index shall be greater than or equal to 2.0 (C_{pk}).

(2) Attribute Data: Process capability/performance shall be the percent beyond the upper/lower specification limit less than or equal to .003 percent ($C_{pk}=1.33$).

e. Describe what actions will be taken if process/operation is sub-marginal or marginal (C_{pk} less than 1.33 or 2.0 for criticals) or grand average fraction defective is greater than .003 percent.

f. Include analysis of statistical distributions.

g. Define all formulas and symbology utilized.

10.3.1.8 Control Chart Policy. The control chart policy shall include the following:

a. Type of charts (i.e., \bar{x}/R , \bar{x}/S , etc.) and rationale for use.

b. Criteria for establishing rational subgroups.

c. Criteria for selection of sample size and frequency of sampling.

d. Procedures for establishing and updating control limits, including frequency of adjustments.

e. Criteria for determining out-of-control conditions (i.e., trends, points beyond control limits etc.) and the corrective action taken; to include failure analysis when the process is unstable or when nonconforming product has resulted from unstable processes. Illustrate out-of-control tests.

f. Describe the method of recording pertinent facts on control charts such as changes in raw material, machines, manufacturing methods and environment, and corrective actions taken.

g. Describe how control charts are traceable to the product.

Block 10, Preparation Instructions (Continued)

10.3.1.9 Vendor/Subcontractor/Purchase Controls. The following shall be addressed concerning subcontractor involvement with SPC:

- a. Identify whether suppliers are required to utilize SPC and describe the extent the vendor's policies and procedures are consistent with in-house procedures of the prime contractor.
- b. Describe the methods utilized to determine that suppliers have adequate controls to assure defective product is not produced and delivered.
- c. Describe the system utilized to audit suppliers, what will be audited and how often.
- d. Describe what action will be taken when out-of-control conditions exist at subcontractor/vendor facilities.

10.3.1.10 SPC Audit System. Describe the following:

- a. Audit of inspection accuracy (verification, inspection).
- b. Audit of control charting procedures (accuracy and adequacy of charts, how charts are kept, whether actions are recorded and audit trails maintained, etc.).
- c. Audit review and analysis (participants, including management involvement, frequency of reviews, discussion topics as they relate to corrective action, etc.).

10.3.1.11 SPC Records. Identify how the following records will be utilized in the application of SPC:

- a. Incoming inspection.
- b. Manufacturing inspection.
- c. Vendor/Subcontractor inspection.
- d. Failure reports (internal and external).
- e. Corrective action reports.
- f. Control charts.
- g. Scrap and rework reports.
- h. Lessons learned, recommendations and feedback.
- i. SPC training records.

10.3.2 Detailed Plan--Section II. This section shall detail specific manufacturing process/operation parameters under control and shall consist of appendices to the general section for process/operation parameters identified for SPC. The Government Representative shall be notified of and provided all documentation of any changes to the detailed plan for review.

10.3.2.1 General Procedures. Discussion of any common information or details, without regard to specific processes (i.e., common computers, inspection equipment, major software packages, personnel, etc.).

Block 10, Preparation Instructions (Continued)

10.3.2.2 Control of Process/Operation Parameters or Characteristics.

a. Identify the following for each process/operation parameter or characteristic under control:

(1) Identify process/operation by name or characteristic and provide rationale for selection; justification for nonselection if the parameter or characteristic is identified as critical, special and/or major.

(2) Describe how the characteristic is produced; the chain of events, type and number of machines involved, location of manufacturing facility, tolerances maintained, etc.

(3) Production machinery; indicate the number of duplicate tools/machines for the characteristic, the number of duplicate stations on each machine. Identify whether the machine is fully or semi-automatic. Identify the production rate, number of shifts and length of shifts.

(4) Identify the number of repetitive machines utilized for inspection. Include whether inspection is fully or semi-automatic or manual (if manual, identify the type of gages in use).

b. Capability study; (see 10.3.1.7 above). Note that if no drawing tolerances exist to compare to the process natural tolerances, the study shall establish the value for sigma and the shape of the frequency distribution. Describe the past history for the process/ characteristic, if one exists.

c. Control charts; (see 10.3.1.8 above). Identify the number and type of charts to be maintained (contingent upon the number of machines in the station, their independence and equivalence, etc.).

d. Performed in-house or subcontracted out; identify facility/vendor where process/operation parameters are targeted for SPC.

10.3.3 Reduction or Elimination of Inspection/Test.

a. Process/Operation parameters must meet the requirements of 10.3.1.7d above and the SPC contract clause before the Government will accept submissions of requests for reduction or elimination of final acceptance inspection/testing from a Contractor. Each request shall contain and/or address the following:

(1) Control charts which document twenty (20) consecutive production shifts or more for the same process/operation parameters under control.

(2) Type of control chart utilized (i.e., \bar{x}/R , \bar{x}/S , etc.).

(3) Control chart limits and process average or grand average fraction defective (as applicable).

(4) Definition of out-of-control condition and corrective actions taken during out-of-control conditions.

(5) Specification and part number.

CONTRACT DATA REQUIREMENTS LIST

DD FORM 1423 (MECHANIZED)

CATEGORY: MISC SYSTEM/ITEM: GAS CYLINDER

TO CONTRACT/PR: P28SSD01

1. SEQUENCE NUMBER	14. DISTRIBUTION	DRAFT/REG/REPRO COPIES
2. TITLE OF DATA ITEM		
3. SUBTITLE		
4. DATA ITEM NUMBER		
5. CONTRACT REFERENCE		
6. TECHNICAL OFFICE	7. DD 8. APP 9. DIST STATEMENT	
	250 CODE REQUIRED	
10. FREQUENCY	11. AS OF DATE	15. TOTAL:
12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUBMISSION	
16. REMARKS		

1. A001	14. SEE ADDRESS CODE	/ /
2. ENGINEERING CHANGE PROPOSAL (ECP)	DISTRIBUTION	/ /
3.	ATTACHED	/ /
4. DI-CMAN-80639B		
5. MIL-STD-973		
6. AMSTA-AR-EDT-R	7. LT 8. - 9. -	
10. ASREQ	11. ---	15. TOTAL 0/ 0/ 0
12. ASREQ	13.	
16. REMARKS		
ECP SHORT FORM SHALL BE USED FOR THE SUBMISSION AND PROCESSING OF ALL CLASS II ENGINEERING ACTIONS. **DISTRIBUTION STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIGURATION MANAGER.		

1. A002	14. SEE ADDRESS CODE	/ /
2. REQUEST FOR DEVIATION (RFD)	DISTRIBUTION	/ /
3.	ATTACHED	/ /
4. DI-CMAN-80640B		
5. MIL-STD-973		
6. AMSTA-AR-EDT-R	7. LT 8. - 9. -	
10. ASREQ	11. ---	15. TOTAL 0/ 0/ 0
12. ASREQ	13.	
16. REMARKS		
**DISTRIBUTION STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIGURATION MANAGER.		

1. A003		14.	
2. REQUEST FOR WAIVER (RFW)		SEE ADDRESS CODE	/ /
3.		DISTRIBUTION	/ /
		ATTACHED	/ /
4. DI-CMAN-80641B			
5. MIL-STD-973			
6. AMSTA-AR-EDT	7. LT 8. - 9. -		
10. ASREQ	11. ---	15. TOTAL	0/ 0/ 0
12. ASREQ	13.		

16. REMARKS
 **DISTRIBUTION STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIGURATION MANAGER.

1. A004		14.	
2. NOTICE OF REVISION (NOR)		SEE ADDRESS CODE	/ /
3.		DISTRIBUTION	/ /
		ATTACHED	/ /
4. DI-CMAN-80642B			
5. MIL-STD-973			
6. AMSTA-AR-EDT-R	7. LT 8. - 9. -		
10. ASREQ	11. ---	15. TOTAL	0/ 0/ 0
12. ASREQ	13.		

16. REMARKS
 THE CONTRACTOR SHALL PREPARE AND SUBMIT A NOR FOR EACH DRAWING, ASSOCIATED LIST, OR OTHER REFERENCED DOCUMENT WHICH REQUIRE REVISION AND SUBMIT SAID NOR WITH THE ECP. **DISTRIBUTION STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIGURATION MANAGER.

1. A005		14.	
2. STATISTICAL PROCESS CONTROL (SPC) PLAN		QAR	/ 1/
3.		AMSTA-AR-QAW(R)	/ 1/
		CONTRACTING	/ /
4. OT-90-12138		OFFICER	/ /
		(LT ONLY)	/ /
5. SECTION E			
6. AMSTA-AR-QA	7. XX 8. A 9.		
10. ASREQ	11.	15. TOTAL	0/ 2/ 0
12. ASREQ	13. WHEN REVISED		

16. REMARKS
 GENERAL SECTION TO BE SUBMITTED AT LEAST 60 DAYS PRIOR TO INITIATION OF PRODUCTION OR 60 DAYS PRIOR TO FIRST ARTICLE TEST (IF FA IS REQUIRED). IF

GENERAL SECTION WAS PREVIOUSLY ACCEPTED, SUBMIT UPDATED/REVISED MILESTONES IN TIMEFRAMES STATED ABOVE. THE GOVERNMENT REQUIRES 30 DAYS TO REVIEW THE PLAN AFTER RECEIPT. DISPOSITION OF THE GENERAL SECTION AND THE CONTRACTORS MILESTONES FOR IMPLEMENTATION WILL BE PROVIDED BY AMSTA-AR-QAW THRU THE CO. DISPOSITION OF THE DETAILED SECTION WILL BE PROVIDED BY THE QAR. A DD FORM 250 IS NOT REQUIRED. email: amsta-ar-qa-cdr1@ria-emh2.army.mil

For narrative kinds of reports, submission of a 3½ inch disk in Rich Text Format, Microsoft Word or by e-mail is acceptable.

For spreadsheets or database kinds of reports, the acceptable software packages would be Microsoft Office products, i.e., Access or Excel. If these packages are not available, the information could be forwarded using a word processing kind of document saved in a text format.

1. A006	14.		
	PROCUREMENT	/	/
2. TEST PROCEDURE/ PHOSPHATE COATING PRE-	CONTRACTING	/	/
3. PRODUCTION PROCEDURE	OFFICER	/	1/
4. DI-NDTI-80603*			
5. DOD-P-16232, PARA 3.1			
6. AMSTA-AR-ESM	7. XX	8. A	9. N/A
10. ONE/R	11. N/A	15. TOTAL	0/ 1/ 0
12. 60 DAC	13. N/A		

16. REMARKS

*PARA'S 10.2.2.2 & 10.2.2.3 ONLY APPLY. BLOCK 8 CONT.-PRIOR TO PRODUCTION, APPROVAL THROUGH THE CONTRACTING OFFICER IS REQUIRED WITHIN 60 DAYS AFTER CONTRACT AWARD. A DD FORM 250 IS NOT REQUIRED FOR PHOSPHATE COATING PROCEDURE APPROVAL. CONTRACTOR FORMAT ACCEPTABLE. SHALL BE SUBMITTED ON AN IBM COMPATIBLE 3-1/2" DISKETTE IN RICH TEXT FORMAT (RTF).

APPROVED BY:  STEPHEN J HANSEN, SDMO, AMSTA-AR-EDT-R

DATE: 11/05/1997